REMARKS

This amendment is in response to the Official Action dated October 18, 2004. Claims 1-28 remain in the application with Claims 1, 12 and 18 being the only independent claims. Favorable reconsideration, in view of the accompanying remarks, is respectfully requested.

In the Official Action, the Examiner has rejected Claims 1-7, 9-16, 18-23 and 25-28 under the provisions of 35 U.S.C. 102(b) as being unpatentable over U.S. Patent No. 5,666,930 to Elder. These rejections are respectfully traversed in view of the following reasons.

Claim 1 defines the invention as a crossover and manifold assembly adapted for conducting a fluid through a vehicle engine, the conduit and manifold assembly comprising a crossover having a passage formed therein extending between a first end and a second end thereof and a manifold joined to the first and second ends of the crossover, the manifold having first and second openings, the first and second openings defining first and second inner surfaces, respectively. Claim 1 further recites that at least one of the first end and the second end of the crossover is disposed within one of the first and the second openings of the manifold such that the at least one of the first end and the second end of the crossover completely covers the one of the first and the second inner surfaces of the one of the first and the second openings thereby preventing fluid from contacting the one of the first and second inner surfaces of the one of the first and second openings of the manifold. None of the cited references, alone or in combination, discloses such a ball joint structure as recited in Claim 1.

Specifically, U.S. Patent No. 5,666,930 to Elder discloses an intake system for conducting air to a v-configured internal combustion engine including a crossover 40 and a manifold 20. As discussed in Elder, the crossover 40 includes passages 44, 42 for engine block coolant and head coolant, respectively, and an internal gas exhaust passage 46 (see col. 2, lines 45-51); the coolant crossover 40 includes a throttle body mounting flange 50 (see col. 2, lines 60-61); and a flexible conduit 70 extends from the throttle body mounting flange 50 to an air intake opening 24 of the manifold 20 and is mounted to the manifold 20 via a snorkel type attachment 72 which requires a

band clamp 74 to establish a leak free seal and the inlet end of the conduit 70 is fixed to the throttle body flange 50 using an integrated molded seal 76 (see col. 3, lines 8-23). Elder discloses that the crossover 40 is connected to the manifold 20 by the flexible conduit 70 and that the air enters the manifold 20 through air intake opening 24 in the manifold 20, the air being metered through the throttle body bore 62 and through opening 66 in the throttle body mounting flange 50 of the crossover 20 (see col. 3, lines 25-30). Thus, in Elder, the fluid (i.e., air) conducted through the air passage 66 of the crossover 40 to the air intake opening 24 of the manifold 20 is clearly in contact with the material of the inner surface of the air intake opening 24 of the manifold 20. Thus, Elder clearly does not disclose or suggest a crossover and manifold assembly adapted for conducting a fluid through a vehicle engine wherein at least one of the first end and the second end of the crossover is disposed within one of the first and the second openings of the manifold such that the at least one of the first end and the second end of the crossover *completely covers* the one of the first and the second inner surfaces of the one of the first and the second openings *thereby preventing fluid from contacting the one of the first and second inner surfaces of the one of the first and second openings of the manifold*, as recited in Claim 1. As discussed in the specification of the instant application starting on page 10, paragraph 0041 "One advantage of the assembly 50, 50' of the invention is that *fluid can be conducted through the passage 58, 58' of the crossover 54, 54', such that the coolant does not contact any portion of the manifold 52, 52' at a joint or connection therewith.* As noted above in regards to the prior art assembly 10, such coolant can react chemically with the polymer material of the manifold 52, 52' such that the polymer material of the manifold is caused to dissolve, thereby degrading performance of the vehicular cooling system. In contrast to the prior art assembly 10 illustrated in Figs. 1 through 3, the assembly 50, 50' allows fluid to flow through the crossover 54, 54' between the ends of the manifold 52, 52' without contacting any portion of the manifold 52, 52'. Polymer dissolution which can occur when known engine coolants contact the intake manifold material is thereby prevented" (emphasis added). Thus, it

is believed that Claim 1, along with dependent Claims 2-11, are patentable over the cited references.

Independent product Claim 12 contains similar limitations to that of Claim 1. Thus, for those reasons discussed above with respect to Claim 1, it is believed that Claim 12, along with dependent Claims 13-17, are patentable over the cited references.

Independent method Claim 18 recites the step of "joining the manifold to the first and second ends of the crossover, wherein at least one of the first end and the second end of the crossover is disposed within one of the first and the second openings of the manifold such that the at least one of the first end and the second end of the crossover *completely covers* the one of the first and the second inner surfaces of the one of the first and the second openings *thereby preventing fluid from contacting the one of the first and second inner surfaces of the one of the first and second openings of the manifold*". Thus, for those reasons discussed above with respect to Claim 1, it is believed that Claim 18, along with dependent Claims 19-28, are patentable over the cited references.

In the Official Action, the Examiner has indicated that Claims 8, 17 and 24 contain allowable subject matter if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 8, 17 and 24 depend from Claims 1, 12 and 18, respectively, and therefore, are believed to be patentable for those reasons discussed above with respect to Claims 1, 12 and 18.

In view of the above remarks, it is believed that the application is in condition for allowance. However, if the Examiner does not believe that the above remarks place the application in condition for allowance, the undersigned attorney respectfully requests a telephone conference with the Examiner to discuss the application and the prior art references prior to the issuance of a final action by the Examiner.